

REMARKS/ARGUMENTS

Claim 63 has been amended. Claims 51-73 are pending.

The applicants would like to thank the Examiner for his time during the teleconference of December 8, 2003.

The Examiner rejected claims 51-73 under 35 U.S.C. 102(b) as being anticipated by ControlShell 5.1 released June 1996. The Examiner stated that Chapter 1 of ControlShell 5.1 anticipates a hierarchical structure and multi hierarchy with a set of components.

Regarding claim 51, ControlShell 5.1 does not disclose a hierarchical system as recited in claim 51 with modes and sub-modes. ControlShell 5.1 did not support a hierarchy. ControlShell 5.1 did provide modes, but they were at one level, instead of in a hierarchy. Regarding claim 58, ControlShell 5.1 does not disclose a hierarchical system and mapping a thread through the multi-level hierarchy, as recited in claim 58. Regarding claim 63, ControlShell 5.1 does not disclose defining an executable image for a multi-level hierarchy control system, as recited in claim 63, as amended. Regarding claim 69, ControlShell 5.1 does not disclose defining an executable image for a control system comprising a multi-level hierarchy, which maps the executable image to logical executable names throughout the multi-level hierarchy. For at least these reasons, claims 51, 58, 63, and 69 are not anticipated by ControlShell 5.1.

The Examiner rejected claims 51-73 under 35 U.S.C. 102(b) as being anticipated by Visual Object-Oriented Programming Concepts and Environments by M.M Burnet et al. (VOOP) or in the alternative under 35 U.S.C. 103(a) unpatentable over VOOP in view of Visual Basic 6.0 as documented in the September 1998 Manual "Visual Basic 6 Unleashed" (VB).

Although VOOP discusses class hierarchy, which is used as a way of defining classes with different inheritances, VOOP does not disclose a control system with a multi-level hierarchy, which defines a hierarchy of data flow for modes, threads and executables, as recited in independent claims 51, 58, 63, and 69, as discussed above. A hierarchy in the definition of classes is fundamentally different than a hierarchy used for data flow. VB does not make up for lack of a hierarchy of data

flow for modes, threads, and executables. For at least these reasons, independent claims 51, 58, 63, and 69 are not anticipated by VOOP or made obvious by VOOP in view of VB.

Claims 52-57, 59-62, 64-68, and 70-73 are ultimately dependent on the independent claims. In addition, these claims add additional features, which when taken together with the limitations of independent claims are not anticipated or made obvious by the cited references. For example, claim 57 recites switching from the mode to a different mode while the control system is executing, deactivating components that correspond to the mode, and activating those components that correspond to the different mode. The graying out of features described in VB may change a GUI, but does not deactivate components and activate other components as recited in claim 57. In addition, claim 62 recites that multiple threads are mapped to multiple components, wherein each component may be assigned on or multiple logical rates and each of the logical rates is mapped to a thread. The bit rates of LabView on page 28 of VOOP are not logical rates as recited in claim 62. Bit rates are simply the speed of data's arrival, not the frequency of the execution of a thread, as recited in claim 62. For at least these reasons, claims 52-57, 59-62, 64-68, and 70-73 are not anticipated or made obvious by the cited references.

In view of the amendments set forth above, it is respectfully submitted that the application is in condition for allowance and action to that effect is respectfully requested at an early date. If the Examiner feels that a telephone conference would expedite allowance of this application, the Examiner is invited to call the undersigned at (831) 655-2300.

Respectfully submitted,
BEYER WEAVER & THOMAS, LLP



Michael Lee
Reg. No. 31,846

P.O. Box 778
Berkeley, CA 94704-0778
(831) 655-2300